



SFB 1315

Mechanisms and Disturbances in Memory Consolidation:
From synapses to systems

Tuesday

JUNE 16, 2020
4:00 pm

ZOOM ID: 7754910236

Register at:

SFB1315.ifb@hu-berlin.de

SFB 1315 LECTURE SERIES 2019-2020

EXPERIENCE-DEPENDENT PLASTICITY IN NEURONAL CIRCUITS OF THE PRIMARY VISUAL CORTEX + CAREER TALK

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Center for Discovery Brain Sciences
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Edinburgh, UK



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German Research Foundation



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EXPERIENCE-DEPENDENT PLASTICITY IN NEUROAL CIRCUITS OF THE PRIMARY VISUAL CORTEX

Neuronal representations in the primary visual cortex (V1) are shaped by experience through the integration of both external visual inputs and internal signals related to an animal's behaviour.

The activity of V1 neurons is thus influenced by a variety of factors when animals navigate through their environment.

Using in vivo two-photon calcium imaging, we examined the activity of V1 neurons before, during and after head-fixed mice were daily exposed to a visual stimulus that was either associated with a reward or just passively viewed.

These results show that neuronal activity in V1 is highly dynamic and changes with the behavioral significance of visual

inputs. We propose that this dynamic regulation of visual processing ultimately enhances and stabilizes the representation of task-relevant features while suppressing responses to non-relevant stimuli.

Nathalie Rochefort's talk will be followed by a short career talk on her career journey, her mentors, advice to young scientists and more.



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